

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of controlling hardware resources in a wireless communication device having a processor and a memory coupled to each other, the method comprising the steps of:

locating a first memory address in the memory associated with a first hardware resource;

transmitting control information associated with the first memory address to the first hardware resource to enable utilization of the first hardware resource; and

determining a pointer that is associated with the first address and that locates a subsequent another memory address in the memory associated with a subsequent hardware resource that can be subsequently utilized.

2. (Currently amended) An apparatus for managing hardware resources in an electronic a wireless communication device having a controller and a memory, the apparatus comprising:

means for locating a first memory address in the memory associated with a first hardware resource;

means for transmitting from the controller control information associated with the first memory address to the first hardware resource; and

means for determining a pointer that is associated with the first memory address and that locates a subsequent another memory address in the memory associated with a subsequent another hardware resource.

3. (Currently amended) In an electronic device having a processor, a memory, and at least one hardware resource coupled to each other, a A method of dynamically implementing changes for scheduling the at least one hardware resource of a wireless communication device, the method comprising the steps of:

a) receiving a first list of addresses associated with the at least one hardware resource, the first list of addresses listing active operation information for the at least one hardware resource;

b) receiving a second list of addresses associated with the at least one hardware resource, the second list of addresses listing backup operation information for the at least one hardware resource;

c) receiving a request to modify an operation of the at least one hardware resource in a given category;

d) modifying the second list of addresses to reflect the request to modify the operation of the at least one hardware resource;

e) exchanging the active/backup status of the first list of addresses and the second list of addresses;

f) duplicating the active second address list as replacement for the backup first list of addresses; and

g) operating the at least one hardware resource according to the modified active-status second list of addresses.

4. (Currently amended) An apparatus for dynamically implementing changes for scheduling at least one hardware resource in ~~an electronic a wireless communication~~ device ~~having a controller and memory~~, the apparatus comprising:

memory means for receiving and storing a first list of addresses associated with the at least one hardware resource, the first list of addresses listing active operation information for the at least one hardware resource;

memory means for receiving and storing a second list of addresses associated with the at least one hardware resource, the second list of addresses listing backup operation information for the at least one hardware resource;

controller means for receiving a request to modify an operation of the at least one hardware resource in a given category;

said controller means operating for:

modifying the second list of addresses to reflect the request to modify the operation of the at least one hardware resource;

~~means for~~ exchanging the active/backup status of the first list of addresses and the second list of addresses;

~~means for~~ duplicating the active second address list as replacement for the backup first list of addresses; and

~~means for~~ operating the at least one hardware resource according to the active modified second list of addresses.

5. (Currently amended) ~~In an electronic device having a processor, a memory, and hardware resources coupled to each other, a~~ A method of operating the ~~a~~ plurality of hardware resources of a wireless communication device comprising the steps of:

a) locating a current address in ~~the a~~ memory, the current address containing operating information associated with a current hardware resource of the plurality of hardware resources;

b) transmitting to the current hardware resource operating information associated with the current address to the current hardware resource; and

c) reading a pointer in the memory, which is associated with the current address, that identifies ~~a subsequent another~~ address containing subsequent operating information for operating another hardware resource of the plurality of hardware resources.

6. (Currently amended) The method of claim 5, wherein the method further comprises the step of:

d) determining whether the current hardware resource is reused within a system cycle.

7. (Currently amended) The method of claim 6, wherein if the current hardware resource is reused within a system cycle, further comprising the step steps of:

e) saving the current hardware resource information from a current use; and

f) repeating steps b), c), and d) until the current hardware resource is not reused within a system cycle.

8. (Currently amended) The method of claim 6, wherein if the current hardware resource is not reused within a system cycle, further comprising the steps of:

e) determining whether operation of the current hardware resource should be terminated; and

f) if operation of the current hardware resource should not be terminated, repeating steps a), b), c), and d) for a subsequent another hardware resource of the plurality of hardware resources that becomes the current hardware resource.

9. (Currently amended) The method of claim 5, wherein the a hardware resource is at least one of a searcher element, a downlink transmitter element, matched filter element, or tracker element.

10. (Currently amended) An apparatus for dynamically implementing changes for scheduling hardware resources in an electronic a wireless communication device having a controller and memory, the apparatus comprising:

- a) means for locating a current address in the memory, the current address containing operating information associated with a current hardware resource;
- b) means for transmitting operating information associated with the current address to the current hardware resource; and
- c) means for reading a pointer, ~~which is~~ associated with the current address, that identifies ~~a subsequent another~~ address containing ~~subsequent~~ operating information for another hardware resource of the device.

11. (Currently amended) The apparatus of claim 10, further comprising:

- d) means for determining whether the current hardware resource is reused within a system ~~cycle~~ cycle.

12. (Currently amended) The apparatus of claim 11, wherein if the current hardware resource is reused within a system ~~cycle~~ cycle, further comprising:

- e) means for saving the current hardware resource information from a current use.

13. (Currently amended) The apparatus of claim 11, wherein if the current hardware resource is not reused within a system ~~cycle~~ cycle, further comprising:

- e) means for determining whether operation should be terminated.

14. (Currently amended) The apparatus of claim 10, wherein ~~the a~~ hardware resource is at least one of a searcher element, a downlink transmitter element, matched filter element, or tracker element.

15. (Currently amended) ~~In a communication device having a processor, a memory, and hardware resources all coupled to each other, a~~ A method of

generating a scheduler for managing ~~the a plurality of~~ hardware resources of ~~the a~~ wireless communication device, the method comprising the steps of:

- a) receiving ~~determining~~ a quantity of available hardware resources for the communication device;
- b) generating a list in ~~the a~~ memory for linking requests to the hardware resources;
- c) receiving ~~information of~~ a desired quantity of hardware resources to be operated in the communication device;
- d) receiving hardware resources operation information;
- e) receiving a request to use at least one of the hardware resources;
- f) assigning ~~a memory an~~ address ~~in the memory~~ to the hardware resource operation information for each of the hardware resources; and
- g) linking the memory addresses of hardware resources.

16. (Original) The method of claim 15, wherein the list is a table listing all virtual resources available for a given function.

17. (Currently amended) The method of claim 15, wherein the list includes a primary table and a secondary table, the primary table tracking a group allocation and the secondary table ~~mapsping~~ ~~mapping~~ virtual uses.

18. (Currently amended) An ~~appartatus~~ apparatus for generating a scheduler for managing the hardware resources of ~~the a~~ wireless communication device having a ~~controller and~~ memory, the apparatus comprising:

- a) means for receiving a quantity of available hardware resources;
- b) means for generating a list in the memory for linking requests to the hardware resources;

c) means for receiving a desired quantity of hardware resources to be operated in the communication device;

d) means for receiving hardware resources operation information;

e) means for receiving a request to use at least one of the hardware resources;

f) means for assigning a memory address to the hardware resource operation information for each of the hardware resources; and

g) means for linking the memory addresses of hardware resources.

19. (Original) The apparatus of claim 18, wherein the list is a table listing all virtual resources available for a given function.

20. (Original) The method of claim 18, wherein the list includes a primary table and a secondary table, the primary table tracking a group allocation and the secondary table mapping virtual uses.